

WHAT IS CLAIMED IS:

1. A sheet feeder that feeds a sheet in an image reading apparatus with an image reading part, the sheet feeder comprising:

a drive roller unit that is disposed at a downstream side from the reading part in a sheet feed direction and includes a drive roller; and

a driven roller unit that includes a driven roller that presses against the drive roller;

wherein a coefficient of friction of an outer layer of the driven roller to a sheet to be fed is smaller than a coefficient of friction of an outer layer of the drive roller to the sheet, and

an axis of the drive roller is disposed perpendicular to the sheet feed direction, and an axis of the driven roller is disposed on a slant with respect to the sheet feed direction.

2. The sheet feeder according to claim 1, wherein the driven roller unit includes a plurality of driven roller segments that are arranged symmetrically on both sides of a center of a width of the sheet to be fed, and axes of the segments of the driven roller are arranged and inclined symmetrically on both sides of the center of the width of the sheet to be fed.

3. The sheet feeder according to claim 2, wherein the axes of the segments of the driven roller are arranged such that an end portion of each axis that is far from the center of the width of the sheet to be fed is on an upstream side in the sheet feed direction and an end portion of each axis that is close to the center of the width of the sheet to be fed is on a downstream side in the sheet feed direction.

4. The sheet feeder according to claim 2, wherein in the driven roller unit, a plurality of the segments of the driven roller is arranged on each side of the center of the width of the sheet to be fed.

5. The sheet feeder according to claim 4, wherein the axes of the segments of the driven roller arranged on one side of the center of the width of the sheet to be fed are aligned on each side of the center of the width of the sheet to be fed.

6. The sheet feeder according to claim 4, wherein the plurality of the segments of the driven roller is placed out of alignment such that the segments of the driven roller on a side far from the center of the width of the sheet are arranged on an upstream side in the sheet feed direction, and the segments of the driven roller on a side close to the center of the width of the sheet are arranged on the downstream side in the sheet feed direction.

7. The sheet feeder according to claim 2, wherein the driven roller unit includes an urging member that urges the segments of the driven roller toward the drive roller, and the urging member urges the segments of the driven roller independently at least on both sides of the center of the width of the sheet to be fed.

8. The sheet feeder according to claim 1, further comprising a conveying roller pair at an upstream side from the image reading part in the sheet feed direction, wherein a sheet conveying path from the conveying roller pair to a pairing of the drive roller and the driven roller is curved.

9. The sheet feeder according to claim 1, wherein the axis of the driven roller is inclined at an angle of  $1^{\circ}$  to  $3^{\circ}$  with respect to a leading edge of the sheet to be fed.

10. The sheet feeder according to claim 2, wherein the drive roller unit has a plurality of segments of the drive roller in the same number as the segments of the driven roller.

11. A downstream sheet conveying mechanism for transporting a fed recording medium from an operation site, comprising:

- a first drive shaft perpendicular to a feed direction of the recording medium;
- a drive roller disposed on the first drive shaft;
- a second drive shaft having at least two segments, each segment inclined relative to the first drive shaft; and
- at least one driven roller mounted to each segment of the second drive shaft.

12. The downstream sheet conveying mechanism according to claim 11, wherein the inclination is in a range of  $1-3^{\circ}$ .

13. The downstream sheet conveying mechanism according to claim 11, wherein the drive roller has a coefficient of friction relative to the recording medium greater than a coefficient of friction of the driven rollers relative to the recording medium.

14. The downstream sheet conveying mechanism according to claim 13, wherein the drive roller is composed of a plurality of segments equal in number to a number of driven rollers, a driven roller and a segment of drive roller comprising a conveying pair.

15. The downstream sheet conveying mechanism according to claim 11, wherein the inclination places a centermost end of a second drive shaft segment one of more upstream and more downstream in the recording medium feed direction than the first drive shaft and

the other end of such second drive shaft segment one of more downstream and more upstream than the first drive shaft.

16. The downstream sheet conveying mechanism according to claim 11, wherein the second drive shaft has four segments, the two innermost segments inclined relative to the first drive shaft and the two outermost segments parallel to the first drive shaft.

17. The downstream sheet converging mechanism according to claim 15, wherein the second drive shaft has four segments, the two innermost segments inclined relative to the first drive shaft and the two outermost segments parallel to the first drive shaft.

18. A processing device, that uses a transported medium for one of reading and printing an image, having a downstream sheet conveying mechanism, comprising:

a first drive shaft perpendicular to a feed direction of the medium;

a drive roller disposed on the first drive shaft;

a second drive shaft having at least two segments, each segment inclined relative to the first drive shaft; and

at least one driven roller mounted to each segment of the second drive shaft.

19. The processing device according to claim 18, wherein the inclination is in a range of 1-3° and the drive roller has a coefficient of friction relative to the medium greater than a coefficient of friction of the driven rollers relative to the medium.

20. The processing device according to claim 19, wherein the inclination places a centermost end of a second drive shaft segment one of more upstream and more downstream in the medium feed direction than the first drive shaft and the other end of such second drive shaft segment one of more downstream and more upstream than the first drive shaft.